

Claims

1. A method for producing a foamed product based on aromatic polyester resin, characterized in that the aromatic polyester resin with a low melting point, ranging 80 to 180°, is input to a mixing unit or an extruder together with foaming gas after being
5 cross-linked with an organic peroxide cross-link agent and subject to a melt mixing or melt extrusion process at a temperature ranging 80 to 180°.
2. The method as claimed in claim 1, characterized in that, in a polymerization step, the aromatic polyester resin with a low melting point is produced in copolymerization
10 by selecting at least one of isophthalic acid (IPA), diethylene glycol (DEG), adipic acid (AA), succinic acid (SA), triethylene glycol (TEG), polyethylene glycol (PEG) and 1,4-cycloheximethanol (1,4-CHDM), and then by inputting the selected one into the mixture or some reaction products of terephthalic acid (TPA) and ethylene glycol (EG), or the mixture or some reaction products of dimethylterephthalate (DMT) and ethylene
15 glycol (EG) under polymerization process.
3. The method as claimed in claim 2, characterized in that said input materials are produced by inputting terephthalic acid (TPA) and ethylene glycol (EG) or dimethylterephthalate (DMT) and ethylene glycol (EG) under polymerization, during
20 any one of esterification, interesterification or condensation polymerization, in order to produce the aromatic polyester resin.
4. The method as claimed in claim 2 or 3, characterized in that said input materials are 17 to 50 parts by weight based on 100 parts by weight of the polyester resin.

5. The method as claimed in claim 1, characterized in that the organic peroxide is an alkylperoxide compound, a peroxyester compound, a diacylperoxide compound, and a peroxyketal compound.

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6. The method as claimed in claim 1, characterized in that the polyester resin is cross-linked so that the melt index (MI) of the cross-linked aromatic polyester resin is 3 to 7g/min at a temperature ranging 80 to 180°C.

10 7. The method as claimed in claim 1, characterized in that more than 70% of the structural unit of the aromatic polyester with a low melting point is polyethyleneterephthalate.

8. The method as claimed in claim 1, characterized in that polyester master batch
15 chips mixed with a filling material consisting of inorganic particles are input together when the aromatic polyester with a low melting point is input into a melt mixing unit or a melt extruder.

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